

**UTILITY PATENT APPLICATION TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docking No. 42P11468D  
(maximum 12 characters)First Name of Inventor Madhav Datta et al.Title: COPPER-CONTAINING C4 BALL-LIMITING METALLURGY STACK FOR ENHANCED RELIABILITY  
OF PACKAGED STRUCTURES AND METHOD OF MAKING SAMEExpress Mail Label No. EV 409 362 189 US**ADDRESS TO:** Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ **Fee Transmittal Form (e.g., PTO/SB/17)**  
(Submit an original and a duplicate for fee processing)
2. ☐ **Applicant Claims Small Entity Status. (37 CFR 1.27)**
3. ☒ **Specification (Total Pages 25)**  
(preferred arrangement set forth below)
  - Descriptive Title of the Invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference sequence listing, a table,  
or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ **Drawings(s) (35 USC 113) (Total Sheets 9)**
5. ☒ **Oath or Declaration (Total Pages 4)**
  - a. ☐ Newly Executed (Original or Copy)
  - b. ☒ Copy from a Prior Application (37 CFR 1.63(d))  
(for Continuation/Divisional with Box 18 completed)
    - i. ☐ DELETIONS OF INVENTOR(S) Signed statement attached deleting  
inventor(s) named in the prior application, see 37 CFR 1.63(d)(2)  
and 1.33(b).
  - c. ☐ Unsigned.
6. ☐ **Application Data Sheet. (37 CFR 1.76)**
7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. ☐ Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. ☐ Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ paper

c. \_\_\_\_\_ Statements verifying identity of above copies

### ACCOMPANYING APPLICATION PARTS

9. \_\_\_\_\_ **Assignm nt Papers (c v r she t & d cum nts(s))**
10. \_\_\_\_\_ a. Separate 37 CFR 3.73(b) Statement (where there is an assignee)
- \_\_\_\_\_ X b. Power of Attorney
11. \_\_\_\_\_ English Translation Document (if applicable)
12. \_\_\_\_\_ X a. Information Disclosure Statement (IDS)/PTO-1449 (or PTO/SB/08)
- \_\_\_\_\_ b. Copies of IDS Citations
13. \_\_\_\_\_ X **Preliminary Amendment**
14. \_\_\_\_\_ X **Return Receipt Postcard (MPEP 503) (Should be specifically itemized)**
15. \_\_\_\_\_ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. \_\_\_\_\_ **Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.**
- 17A. \_\_\_\_\_ X Other: Formal Drawings Submission

- 17B. \_\_\_\_\_ X Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.


18. If a **CONTINUING APPLICATION**, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet Under 37 C.F.R. 1.76:

\_\_\_\_\_ Continuation \_\_\_\_\_ X Divisional \_\_\_\_\_ Continuation-in-part (CIP)  
Of Prior Application No.: 09/961,034 Examiner Pham, Long Group Art Unit 2814  
(which is a \_\_\_\_\_ continuation/ \_\_\_\_\_ divisional/ \_\_\_\_\_ CIP of prior application no. \_\_\_\_\_,  
which is a \_\_\_\_\_ continuation/ \_\_\_\_\_ divisional/ \_\_\_\_\_ CIP of prior application no. \_\_\_\_\_) (List entire chain of priority)

Applicant(s): Also include a Preliminary Amendment to amend the specification to claim priority.  
For CONTINUATION AND DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. Correspondence Address  
\_\_\_\_\_ Customer Number or Bar Code Label \_\_\_\_\_  
or \_\_\_\_\_ (Insert Customer No. or Attach Bar Code Label here)

\_\_\_\_\_ X Correspondence Address Below  
NAME Michael A. Bernadicou  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
ADDRESS 12400 Wilshire Boulevard  
Seventh Floor  
CITY Los Angeles STATE California ZIP CODE 90025  
Country U.S.A. TELEPHONE (408) 720-8300 FAX (408) 720-8383

Name (PRINT/TYPE): Micha l A. Bernadic u Registration N .: 35,934  
Signature:  Dat : 2/10/04

**FEE TRANSMITTAL FOR FY 2004**

(FY 2004 Begins 10/01/2003)

**TOTAL AMOUNT OF PAYMENT (\$)** \$770.00**Complete if Known:****Application No.** Not yet assigned**Filing Date** Herewith**First Named Inventor** Madhav Datta et al.**Examiner Name** Not yet assigned**Art Unit** Not yet assigned**Attorney Docket No.** 42P11468D☐ **Applicant claims small entity status. See 37 CFR 1.27.****METHOD OF PAYMENT** (check all that apply)☒ **Check** ☐ **Credit Card** ☐ **Money Order** ☐ **Other** ☐ **None**☐ **Deposit Account****Deposit Account Number :** 02-2666**Deposit Account Name:** \_\_\_\_\_☒ **The Director is Authorized to do the following with respect to the above-identified Deposit Account:**☐ **Charge fee(s) indicated below.**☒ **Credit any overpayments.**☒ **Charge any additional fees during the pendency of this application.**☒ **Any concurrent or future reply that requires a petition for extension of time should be treated as incorporating an appropriate petition for extension of time and all required fees should be charged.**☐ **Charge fee(s) indicated below except for the filing fee.****FEE CALCULATION****1. BASIC FILING FEE**

<u>Large Entity</u>		<u>Small Entity</u>		<u>Fee Description</u>	<u>Fee Paid</u>
<u>Fee</u>	<u>Fee</u>	<u>Fee</u>	<u>Fee</u>		
<u>Code</u>	<u>(\$)</u>	<u>Code</u>	<u>(\$)</u>		
1001	770	2001	385	Utility application filing fee	<u>\$770.00</u>
1002	340	2002	170	Design application filing fee	_____
1003	530	2003	265	Plant filing fee	_____
1004	770	2004	385	Reissue filing fee	_____
1005	160	2005	80	Provisional application filing fee	_____
<b>SUBTOTAL (1)</b>					<b><u>\$ 770.00</u></b>

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

			<u>Extra Claims</u>	<u>Fee from below</u>	<u>Fee Paid</u>
<b>Total Claims</b>	<u>11</u>	- 20** =	<u>0</u>	X <u>\$18.00</u>	= _____
<b>Independent Claims</b>	<u>2</u>	- 3** =	<u>0</u>	X <u>\$86.00</u>	= _____
<b>Multiple Dependent</b>				<u>\$290.00</u>	= _____

**\*\*Or number previously paid, if greater; For Reissues, see below.**

<u>Large Entity</u>		<u>Small Entity</u>		<u>Fee Description</u>
<u>Fee</u>	<u>Fee</u>	<u>Fee</u>	<u>Fee</u>	
<u>Code</u>	<u>(\$)</u>	<u>Code</u>	<u>(\$)</u>	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	**R issue independent claims over original patent
1205	18	2205	9	**R issue claims in excess of 20 and over original patent

**SUBTOTAL (2)** \$ 0.00

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

<u>Larg Entity</u>		<u>Small Entity</u>		<u>Fee Description</u>	<u>Fee Paid</u>
<u>Code</u>	<u>Fee (\$)</u>	<u>Code</u>	<u>Fee (\$)</u>		
1051	130	2051	65	Surcharge - late filing fee or oath	_____
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	_____
1053	130	1053	130	Non-English specification	_____
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	_____
1813	8,800	1813	8,800	Request for inter parties reexamination	_____
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	_____
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	_____
1251	110	2251	55	Extension for reply within first month	_____
1252	420	2252	210	Extension for reply within second month	_____
1253	950	2253	475	Extension for reply within third month	_____
1254	1,480	2254	740	Extension for reply within fourth month	_____
1255	2,010	2255	1,005	Extension for reply within fifth month	_____
1401	330	2401	165	Notice of Appeal	_____
1402	330	2402	165	Filing a brief in support of an appeal	_____
1403	290	2403	145	Request for oral hearing	_____
1451	1,510	1451	1,510	Petition to institute a public use proceeding	_____
1452	110	2452	55	Petition to revive - unavoidable	_____
1453	1,330	2453	665	Petition to revive - unintentional	_____
1501	1,330	2501	665	Utility issue fee (or reissue)	_____
1502	480	2502	240	Design issue fee	_____
1503	640	2503	320	Plant issue fee	_____
1460	130	1460	130	Petitions to the Commissioner	_____
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	_____
1806	180	1806	180	Submission of Information Disclosure Stmt	_____
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	_____
1809	770	2809	385	For filing a submission after final rejection (see 37 CFR 1.129(a))	_____
1814	110	2814	55	Statutory Disclaimer	_____
1810	770	2810	385	For each additional invention to be examined (see 37 CFR 1.129(b))	_____
1801	770	2801	385	Request for Continued Examination (RCE)	_____
1802	900	1802	900	Request for expedited examination of a design application	_____
1504	300	1504	300	Publication fee for early, voluntary, or normal pub.	_____
1505	300	1505	300	Publication fee for republication	_____
1803	130	1803	130	Request for voluntary publication or republication	_____
1808	130	1808	130	Processing fee under 37 CFR 1.17(i) (except provisionals)	_____
1454	1,330	1454	1,330	Acceptance of unintentionally delayed claim for priority	_____

Other fee (specify) \_\_\_\_\_

Other fee (specify) \_\_\_\_\_

**SUBTOTAL (3) \$ 0.00**

\*Reduced by Basic Filing Fee Paid

**SUBMITTED BY:**Typed or Printed Name: Michael A. BernadicouSignature: *Michael A. Bernadicou* Dat : 2/10/04Reg. Numb r: 35,934 Telephone Numb r: (408) 720-8300

Send to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	Examiner: Not yet assigned
Madhav Datta et al.	)	
	)	Art Unit: Not yet assigned
Serial No.: Not yet assigned	)	
	)	
Filed: Herewith	)	
	)	
For: COPPER-CONTAINING C4 BALL-	)	
LIMITING METALLURGY STACK FOR ENHANCED)	)	
RELIABILITY OF PACKAGED STRUCTURES	)	
AND METHOD OF MAKING SAME	)	
<hr/>		
Which is a Divisional of Application of:	)	
	)	
Serial No: 09/961,034	)	
	)	
Filed: September 21, 2001	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**FORMAL DRAWINGS SUBMISSION**

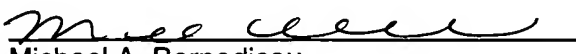
Enclosed herewith for submission in the United States Patent and Trademark Office  
are nine (9) sheets of formal drawings for the patent application referenced above.

"Express Mail" mailing label number: EV 409 362 189 US  
Date of Deposit: February 10, 2004  
I hereby certify that I am causing this paper or fee to be deposited with the United States Postal  
Service "Express Mail Post Office to Addressee" service on the date indicated above and that this  
paper or fee has been addressed to Mail Stop New Patent Application, COMMISSIONER FOR  
PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450  
Teresa Mattox  
(Typed or printed name of person mailing paper or fee)  
Teresa Mattox  
(Signature of person mailing paper or fee)  
February 10, 2004  
(Date signed)

If there are any further charges please charge them to Deposit Account No. 02-2666. A duplicate of this sheet is enclosed for that purpose.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 2/10, 2004   
Michael A. Bernadicou  
Reg. No. 35,934

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, California 90025-1026  
(408) 720-8300